



Social Media's Impact on Wall Street



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Introduction

As technology rapidly advances in today's society, people and organizations must adapt to the growing social media environment in order to compete. An estimated six billion dollars will be spent on advertising for social networks this year alone. With more than 2 billion people using the Internet, 60% of those individuals spend time on social networking sites. With 600 million Facebook users and 190 million Twitter users, social networking has become the number one online activity in the United States. Social media is expanding at an exponential rate with more than 460,000 new Twitter accounts created each day. Facebook is predicted to surpass 800 million users in 2011ⁱ. In a few short years, social media has grown beyond expectations, transcending all age groups and industries.

A man in Abbottabad, Pakistan essentially broke the news of Osama bin Laden's death when he tweeted about the firefight and hovering helicopters he heard outside. Similarly, news of the Japan earthquake and tsunami flashed around the globe via Twitter and Facebook faster than most people learned of the tragedy from TV.

In the financial-services sector, companies like Wells Fargo, J.P. Morgan Chase, Charles Schwab, American Express, and Ernst and Young have positioned social media as an integral part of their business strategies.

In this paper, we highlight the growth of social media, how it has fundamentally changed communication, and how Wall Street is capitalizing on social media, subsequently affecting the ways investors make decisions about their portfolios. More investors are using social media to get news on their favorite stock holdings and funds. One particular study used a sophisticated sentiment analysis on Twitter to predict how the Dow Jones Industrial Average moves on any given day, up to four days in advance, with 80% accuracy. Our society is now more committed to social media communities to not only maintain personal relationships, but access investment research and make decisions, resulting in stronger brand affinity. Indeed, social media has become

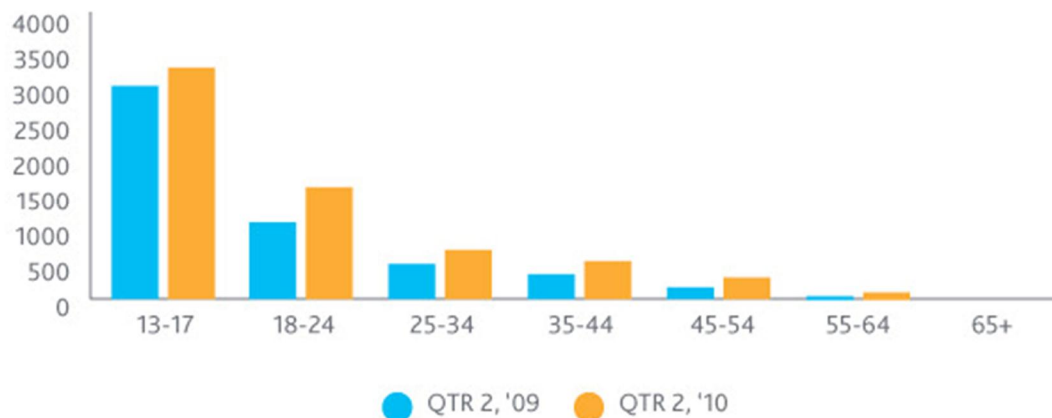
omnipresent, putting companies that have not developed a social media presence at a distinct disadvantage.

Communication is Changing

Technology and social media have transformed the way people communicate. A *New York Times* article states that “90% of the households in the United States [had] cell phones in 2010”ⁱⁱ (smartphone users have just surpassed conventional function phone users). According to the CTIA Wireless Association, the number of text messages sent per user has increased by 50% in the United States since 2009. In a 2010 Nielsen Co. Database, adults between the ages of 45 and 54 received an average of 323 text messages per month, a 75% increase from 2009. As social media sites, such as Facebook and Twitter, are becoming increasingly mainstream, adults are adapting to these new communities. Not surprisingly, teenagers and young adults have become faster adopters of the technology and spend more time sending and receiving texts - teens between 13 and 17 text the most among all age categories.

Text usage by Age

Q2 '09 - Q2 '10, Customer Value Metrics, National



Source: The Nielsen Company

In October 2009, 400 million out of the 1.8 trillion text messages sent were mere alerts to users about updated statuses, tweets, wall posts, picture comments, etc. In September of 2010, the number of text message alerts exceeded 1 billion. Social media sites reinforce the idea that people are changing the way they communicate; they are now communicating in “micro bursts”ⁱⁱⁱ.

In 2001, only 8% of Americans used text messaging. In contrast, over 50% of the population now uses text messages^{iv}. Text messages are a fast and inexpensive way to communicate, especially for businesses with their employees. Though it can be intrusive and distracting, texting is ultimately changing the way we communicate with each other. In a study mentioned in “Organizational Behavior”, a survey of managers revealed that in 86% of their meetings, employees are constantly checking their text messages. Immediate communication and receiving real-time information have become increasingly addictive behaviors. Cell phone usage has extended far beyond the workplace, and into people’s leisure time^v. Texting is fundamentally changing the way we converse with others making, relationships less personable and more focused on time efficiency^{vi}. *The Wall Street Journal* states that researchers believe “we default to text to relay difficult information”^{vii}.

Executives and professionals still use phone calls, but *The Wall Street Journal* states that people tend to use “text based communications at the preliminary stages of a project” and use the phone when “there are multiple options to consider or binding decisions are made”.

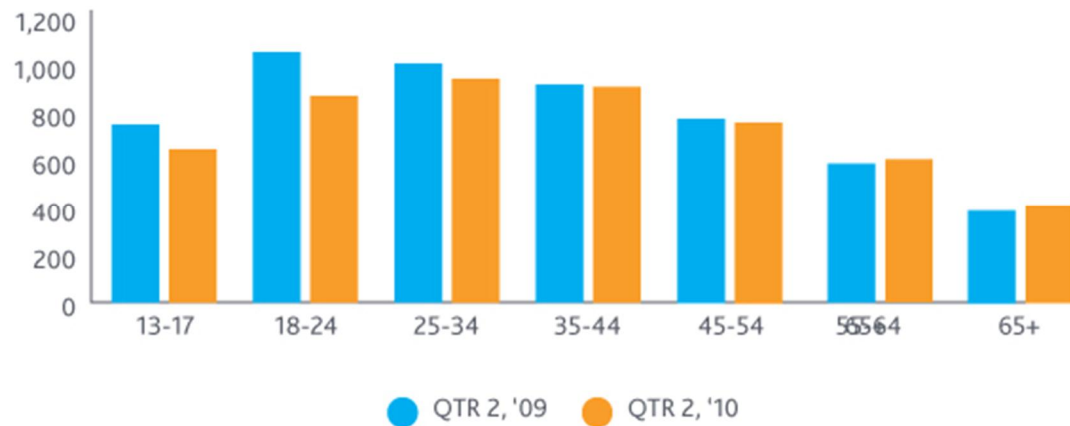
People continue the trend of spending more time texting and less time on the phone. In 2010, adults made and received an average of 188 cell phone calls per month, which is down 25% from 2007. Young adults from the ages of 18-24 spend less time talking on the phone as the number of minutes they used dropped by 17%; the number of minutes used by adults dropped by 5% from 2009 to 2010.

Parents have even noticed that in order to communicate with their teenager, the most efficient channel is via text messaging^{viii}. Text messaging allows people to communicate with each

other at any time and at any physical location. The simplicity and convenience of text messaging has made the process of leaving a voicemail seem long and tedious.

Voice Usage by Age

Q2 '09 - Q2 '10, Customer Value Metrics, National



Source: The Nielsen Company

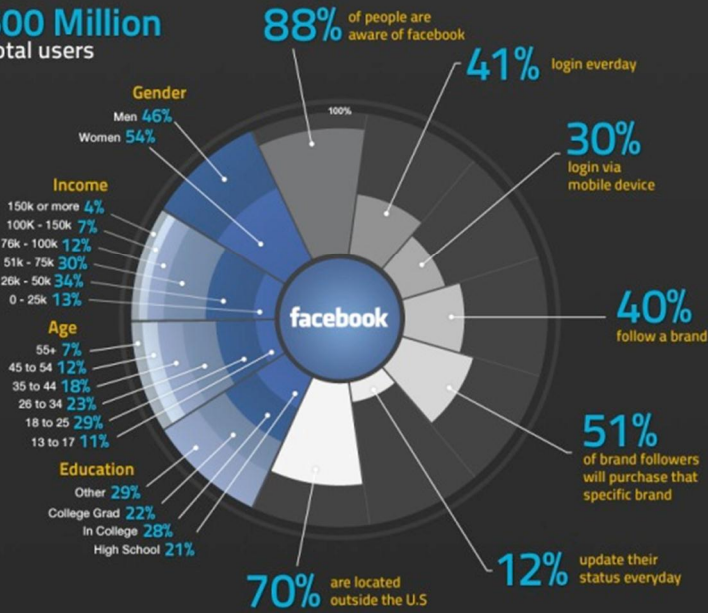
A BBC article states that 85% of the time, people had to listen to a voicemail twice before they were able to understand the necessary information and details to return the phone call^x. James Siminoff, founder of PhoneTag, a company that transcribes voicemails into text messages, revealed that on average there is a 5-hour lag time between the time when the voicemail is left and when someone decides to listen to it. It takes 5 seconds for PhoneTag to relay any voicemail into a text message, while it takes minutes to leave a short voice message^x.

In a society with access to instant information, social media adds yet another dimension to how we communicate. Originally made popular by college students, social media sites like Facebook and Twitter have transcended all age groups. An overwhelming 57% of Twitter users are between the ages of 28 to 44 years old, while only 17% of Twitter users are college students and teenagers. The social demographics of Facebook, however, tend to attract people between the ages of 18 to 28 years old. Regardless of age, the increase in usage of cell phones, text messaging, and social media has revolutionized the communication process, promoting instant forms of communication.

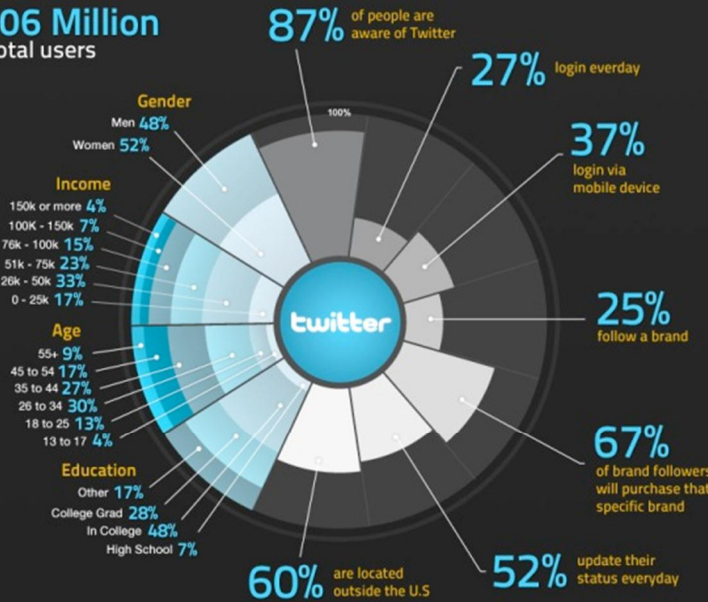
facebook vs. twitter

a breakdown of 2010 social demographics

500 Million
total users



106 Million
total users



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Sources:
http://money.cnn.com/2010/03/10/technology/twitter_users_active/
<http://www.scoop.intel.com/EmergenceMedia/facebooks-demographics-user-statistics-emergence-media>
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https://www.google.com/adplanner/planning/size_profiles?data=brand=facebook.com&geo=001&rat_type=1&pr=aw

Social Media and Wall Street

Self-Directed Investors

Social media not only affects the way we communicate, but it is changing the way people are investing. It has offered self-directed investors real-time and instantaneous financial information, while traditional sources of financial information are slow and losing their grip on the average investor. Investors are now using all aspects of social media to educate themselves and obtain research they can use to make investment decisions. Years ago, many people could not access the Internet and would get most of their investing advice from publications such as *The Wall Street Journal*. Newspapers and the nightly news used to set news agenda for the day, but now it seems as if they are taking their cues from social media. An increasing amount of investors are turning to Twitter and Facebook for financial advice. A casual survey conducted by CNBC, revealed that 38% of those surveyed would take advice from Twitter, 39% said they would not, while 23% were thinking about it^{xi}.

Recently, CNBC detailed how Twitter transformed trading in commodities for average investors. A tweet by an Ohio farmer, Mike Haley, said that the Hunnicutt brothers, two farmers from Nebraska, had the best corn that Haley had "seen in a while". Using this information, the Hunnicutts delayed the sale of their corn in anticipation that the price would rise, which ultimately led to a \$200,000 profit. Tweeting between farmers has increased substantially and has the potential to revolutionize agriculture markets in the U.S. Agriculture brokers and traders have the option to visit Twitter for information on whether to buy or sell shares^{xii}.

A subcontractor to British Petroleum (BP) offered a similar example when he tweeted about the inadequate preparations for the cleanup of the oil spill. BP was forced to tell the subcontractor to tone down his tweets because he was giving away too much information, thus causing people to sell shares of BP^{xiii}.

Many wonder how reliable social media really is as a source of financial information. A recent study by researchers at Purdue University shows Seeking Alpha, the leading financial social media website, is an effective predictor of stock movements and earnings surprises. Researchers compared Seeking Alpha to *The Wall Street Journal* to see if the social media site had as much valuable information as the traditional media outlet. After conducting an analysis based on the sentiment of over 2,800 stocks in articles in both Seeking Alpha and *The Wall Street Journal*, the researchers concluded that social media sentiment from Seeking Alpha articles has a stronger association with higher returns. Essentially, Seeking Alpha articles are more successful in predicting future earnings surprises, and articles that receive a lot of comments have a higher chance of getting high stock returns.

For example, if a trading strategy had been used to compare long stocks with positive sentiment and short stocks with negative sentiment, Seeking Alpha would have had returns of 0.40% per day and 8.31% per month. In contrast, *The Wall Street Journal* would have generated returns of 0.29% per day and 5.96% per month.

These findings suggest the financial advice from the 3,000 contributors at Seeking Alpha is much more effective than mainstream media outlets like *The Wall Street Journal*. One explanation could be that the information from Seeking Alpha, like all other social media websites, is more real-time than that of mainstream media. Articles in *The Wall Street Journal* can take days or weeks to publish, by which time the information may no longer be as relevant. While the quality of articles on Seeking Alpha may or may not be better than those of *The Wall Street Journal*, these articles are certainly timelier; another reason to embrace social media^{xiv}.

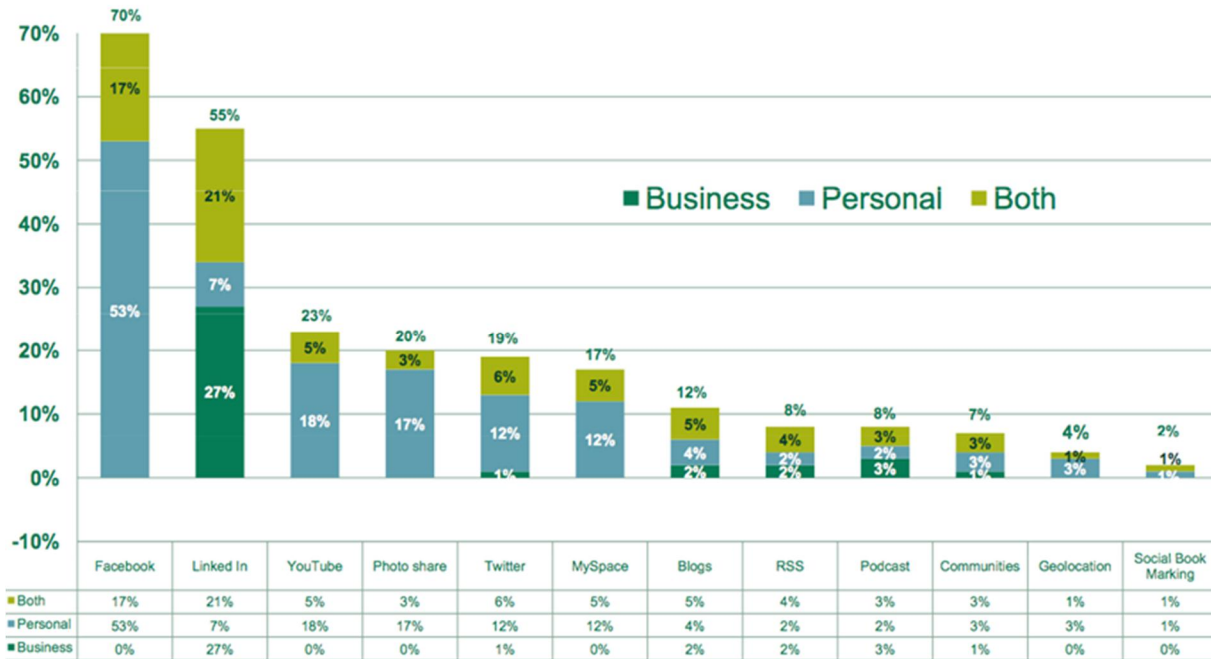
Self-directed investors need to be careful in deciding which information provided by social media they should use to make their investment decisions. In early January 2011, the recording artist, 50 Cent, tweeted to his 3.8 million Twitter followers "[H & H Imports] Stock went from 5 cents to 10 in one day. You can double your money right now. Just get what you can afford. [H & H Imports has]...15 products this year. If you get in technically I work for you. BIG MONEY."

H&H Imports is a penny stock traded on the Pink Sheets, but 50 Cent did not inform his followers that he owned 30 million shares of the stock at a price per unit of \$0.10. 50 Cent was able to come back from a \$412,000 loss to an \$8.7 million profit because of a simple tweet on Twitter. Within a two-day period of the tweet, there were 9.24 million shares traded^{xv}. After 50 Cent told his followers to buy stock in H&H Imports, he released a statement on Twitter stating, "I own HNHI stock, thoughts on it are my opinion. Talk to financial advisor about it."

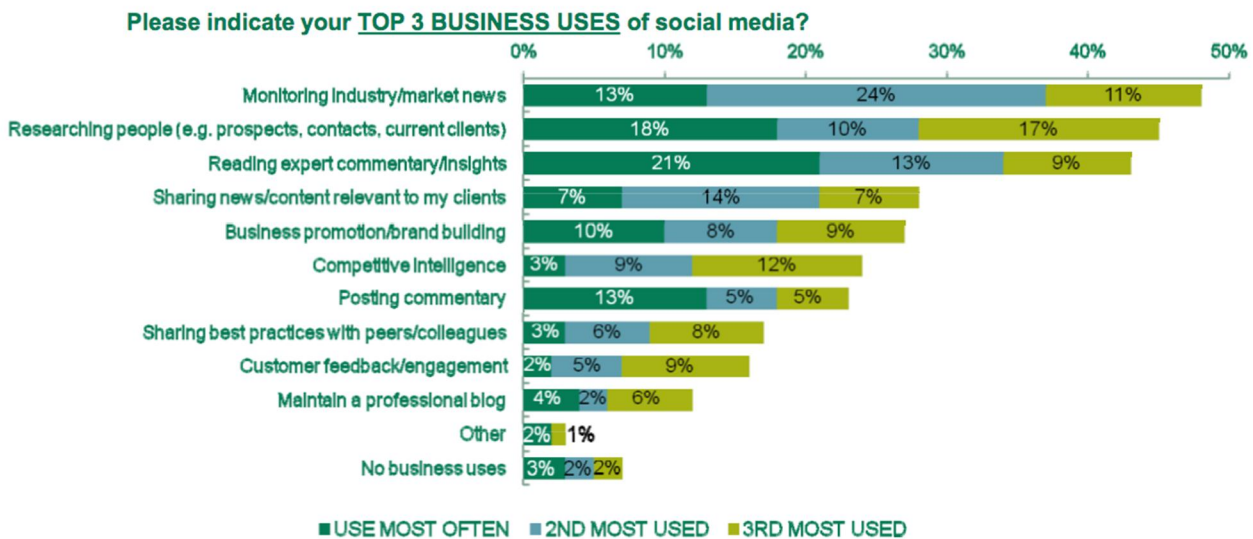
With social media, celebrities like 50 Cent can now communicate with the majority of their fan base in a minimal amount of time. Unrestricted by regulatory agencies because they are not financial advisors, celebrities have the ability to manipulate followers for personal gains. As some companies and individuals use social media to "lure unsuspecting investors", the general public must be aware that a tweet or Facebook status may be a scam^{xvi}. A *New York Times* article states they hope investors do not think that all social media companies and their content are reliable and trustworthy^{xvii}.

Financial Advisors

Social media usage in the financial advisor industry has grown significantly in the past year. American Century Investments surveyed 303 financial professionals and found 86% of respondents in 2011 have a social media profile^{xviii}. This is a significant increase from 73% in 2010. However, social media seems to still be used predominantly for personal usage. The chart below shows the percentage of respondents using each form of social media and their main usage for each. While most sites are used mainly for personal purposes, the leading use of LinkedIn is for business. Over half (55%) of those who reported using social media for business purposes use it "several times a week", with 24% of respondents reporting daily usage of social media.



When respondents were asked for their top three usages for social media, the leading response was to monitor the industry and market, with nearly half of respondents including it in their top three. Researching people and reading expert commentary and insights came to a close second and third.

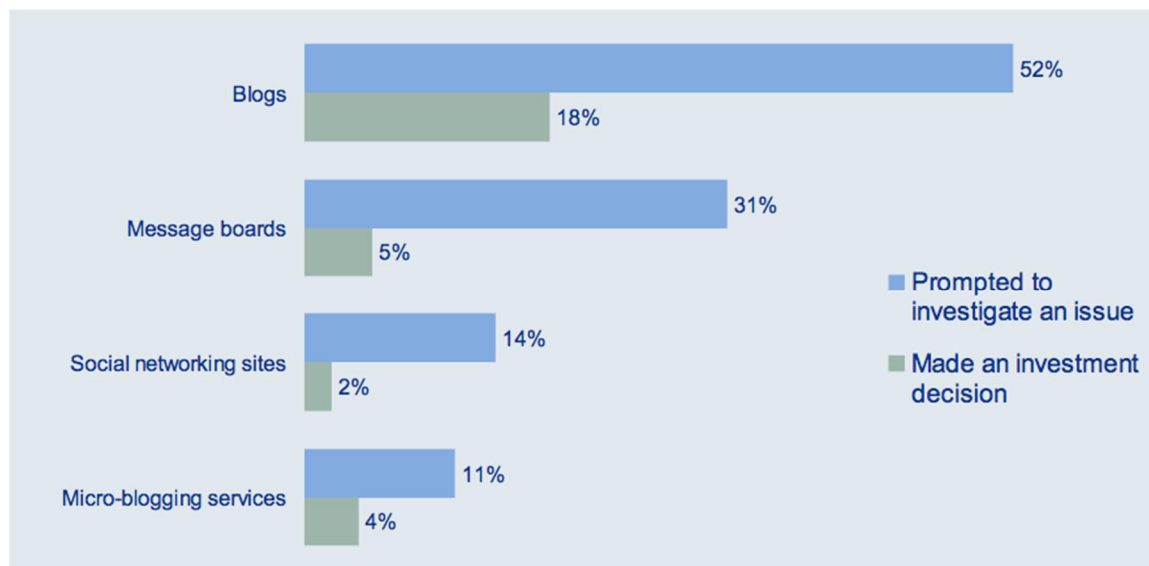


We can expect future usage of social media by financial advisors to be even larger. Seventy-seven percent of respondents reported they have business-related plans for social media. Attitudes

toward social media seem to be changing too: opinions are rising in support of the importance of social media. Compared to 44% in 2010, 56% now agree “social media is an emerging trend with significant future potential”. Forty-one percent believe “social media has value for their business”, compared to 26% in 2010. Social media also seems to be winning over financial advisor skeptics. So far this year, only 15% believe “social media is a fad with little value for business”, compared to 22% in 2010^{xix}.

The study also shows few financial advisors believe social media is a reliable source of information to base investment decisions. Respondents were asked if they have ever read any information posted on a blog, micro-blogging service or social networking site that has prompted them to investigate an issue further or make an investment decision. Fifty-two percent responded they were prompted to investigate an issue, while only 18% made investment decisions after reading a blog post.

It is important to understand this study reflects only the opinions of a sample of financial advisors; of those advisors, 83% manage funds from \$250m to over \$100bn^{xx}.



Big Wall Street Firms

Banks, brokers, insurance companies and other large brands in the financial services arena are committed to utilizing social media as a means of promoting their companies. Many of these brands have suffered in the past ten years for two main reasons: (1) an economic meltdown leading to the worst recession since the 1930s and (2) technological advancement in social media, which has provided the average investor the ability to recognize second and third tier brands. Companies have realized the importance and effectiveness of reaching customers through social media sites. Big name organizations have adopted different social media strategies in the attempt to attract customers and investors^{xxi}.



Wells Fargo is currently utilizing social media with seven different blogs and three YouTube channels. The blogs range from addressing environmental concerns, helping college students understand student loans and conversations on various financial issues. YouTube channels are mainly concerned with understanding Wells Fargo, commercial banking and growing small businesses.

Chase is using Facebook to deliver “customer-focused products.”

For example, Chase used Facebook to promote a student-oriented credit card and set up a “Chase Community Giving” Facebook page to get people involved in donating money to their favorite local charities.



In 2007, Charles Schwab launched a private online community called “Money and More” to gain insights on non-Schwab Generation X clients. They realized the power of social media after seeing a 32% increase in Gen-X clients. The company now

has a Twitter and Facebook page that allow people to have discussions on various investment topics.

Fidelity reaches customers by using map mash-ups, podcasts and a Facebook page. In 2010, the company held a YouTube video contest to promote their "Be the Green Line" campaign.



American Express began using a website called OPEN Forum that provides a dialogue for customers. The company also maintains a YouTube channel and Facebook page.

Ernst and Young maintains a Facebook page and has posted several YouTube videos that focus on recruiting new college graduates.



ING maintains various Asian blogs as well as a microfinance blog. They have also created a Facebook page that lists their international operations offices.

Regulatory Landscape

With the majority of financial services companies establishing a social media presence, concerns have been raised in terms of regulations. Some of the issues include misleading information, proper disclosures, the release of confidential information and the invasion of privacy. The Financial Industry Regulatory Authority (FINRA) has attempted to address these concerns through the FINRA Regulatory Notice 10-06 statement released in January 2010. This notice states that FINRA has disciplinary actions for those who communicate misleading information about

financial investing through electronic means. The notice requires companies to keep a record of all social media activity, but it does not specify what constitutes appropriate and inappropriate behavior. Rather, FINRA encourages companies to set their own policies and procedures in their business plans and supervisory programs. The message sent by FINRA implies companies should not do anything they would consider unethical.

With numerous new features introduced to social media each day, it is difficult for regulatory agencies to keep up and set strict guidelines regarding every feature of social media. However, until stricter guidelines are implemented, regulatory agencies do not seem to be hindering the rapid growth of social media in the foreseeable future^{xxii}.

Marketing

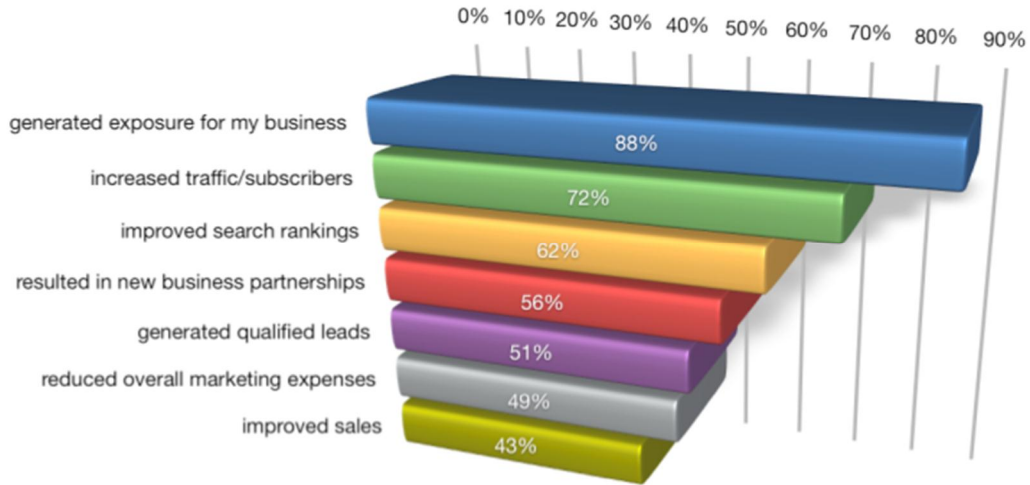
Social media has shown to have a significant impact on marketing, allowing companies to bypass the traditional function of a middleman in order to directly reach out to consumers in a reasonable amount of time. The majority of marketers are now including social media as part of their business plan. The Social Examiner Marketing Industry Report, published in April 2011, surveyed 3,342 marketers and found that 93% of marketers from all industry groups indicated they were utilizing social media for marketing purposes, with half of those having started in the past 12 months. The study also found that 88% of marketers agree that social media marketing has helped their company gain brand recognition (See Figure 1).

Pepsi attempted to expand its social media campaign by diverting their Super Bowl commercial budget. They developed a stronger presence in the global movement toward social media - this was the first time in 23 years that Pepsi did not run a commercial during the Super Bowl.



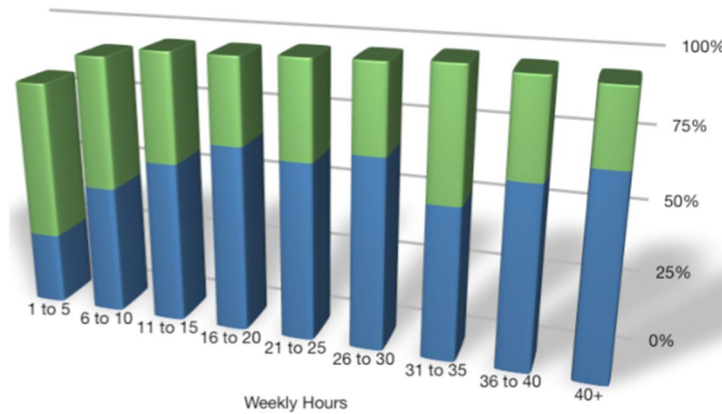
Through social media outlets, Pepsi pushed forward with its "Pepsi Fresh" initiative to provide a philanthropic, social movement while advertising its name brand¹.

Figure 1 Benefits of social media marketing



Interestingly enough, 81% of marketers reported that even with minimal time investment in social media marketing, they were still able generate exposure for their business (See Figure 2).

Figure 2 How time spent on social media marketing affects gains in brand recognition



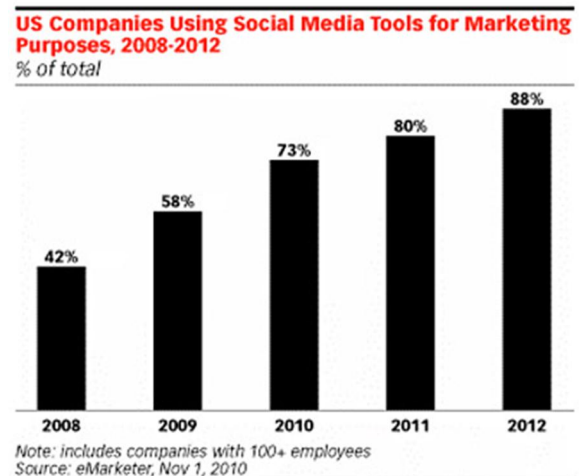
However, for marketers to reap the rewards of the other six benefits listed, a substantial time of investment was usually required. Just over 20% of marketers who spent 5 or less hours on social media, compared to 50% of those who spend 11 or more hours, saw sales increase as a result of social media marketing. Similarly, only 35% of marketers who spent under 5 hours saw overall marketing expenses reduced as a result of social media marketing, compared to 50% of those who

spent over 11 hours. This positive correlation between time spent and effectiveness applied to the other four reported benefits too.

The study also found experience as an important factor in the effectiveness of social media marketing. Experienced social media marketers show better results than marketers who are new to the field. Over 72% of those with more than 3 years of experience agree that social media has helped them improve sales, compared to just over 20% of marketers new to social media marketing. This positive correlation also applies to reducing marketing expenses. The study shows that those with more than 3 years of social media marketing experience were much more effective in reducing costs than newcomers (65% to 35%). The data for all of the other benefits is consistent with this trend. Going forward, marketers see a lot of potential in social media marketing, with at least 73% of marketers planning to increase the use of YouTube/video, blogs, Facebook and Twitter.

A study by DreamGrow Social Media revealed that consumers will use social media to learn about products, even if the company that produces that product does not have a social media presence^{xxiii}. Why let others tell your customers about you? This will force companies to engage in social media and challenge organizations to develop a social media campaign.

They year 2011 will be a vital year for organizations to create a social media marketing plan because social media sites are becoming popular applications on mobile devices. *Business News Daily* predicts 4 out of every 5 businesses will apply social media strategies in 2011^{xxiv}. The use of social media by marketing and advertising companies will have more than doubled by 2012 from 2008^{xxv}. Consumers will not only have constant access to news and information about organizations through mobile technology, but they will also receive



updated information about upcoming products, permitting them to share or obtain information anytime and anywhere.

Wall Street Meets Social Media

Social media is still predominantly for personal use, though financial advisors are increasingly using social media to monitor the industry and the market. Social media does impact financial decision making as shown in a study conducted by a student, Timm Sprenger, at the University of Munich. One study done at Indiana University by Professor Johan Bollen, indicates the collective mood of Twitter predicts how the Dow moves on a given day, up to four days before it happens, with 87% accuracy. Bollen joined 28-year-old, Paul Hawtin of Derwent Capital, who is starting a hedge fund that is capitalizing on Bollen's discovery. The hedge fund will use quantitative models that crawls through millions of tweets and looks for words of sentiment such as "calm," that could predict how stocks are traded days later.

Drawbacks and Concerns

Although at this point it may seem social media and investing go hand-in-hand, using social media as an information source can have its drawbacks. Groupthink can arise^{xxvi}. If many receive information quickly and act on it, it could result in a "madness of crowds" situation. With all of the ups and downs on Wall Street in the past 10 years, the jury is still out on whether social media will lead investors down the wrong path; versus investors using information to make the right investment decision. In the end, it is not the quantity of information or the timeliness of information, but the qualitative value of the information.

Also, Twitter gaffes are commonplace and can cost offenders their jobs, and are embarrassing for companies when spokespersons are involved. For example, Aflac fired Gilbert Gottfried, famous voice of the Aflac duck, after the comedian faced a backlash over tweets he sent that joked about Japan's devastating tsunami.

Additionally, 140 characters in a Tweet does not allow a lot of information to be conveyed or complex ideas, although it can get investors to think about something or do more research into a possible investment.

Conclusion

Social media has taken the world by storm, with startling scope and intensity. In a few short years, the phenomenon has attracted over 1.2 billion people. Social media has revolutionized the way we communicate, providing us with easily accessible, instantaneous, and real-time information. It has expanded far beyond its original intended purpose of personal usage.

In the ongoing battle between companies to attract consumers' attention, companies are turning to social media as the new frontier. Those who acted early and have put a substantial time commitment to social media marketing have reaped the benefits, while others are frantically trying to catch up. We have seen a significant amount of companies engage in social media for the first time in the past year.

Companies have incorporated social media into their brand building, marketing, customer service, and client retention. They have also established a community to maintain a presence with clients and prospective clients, and to introduce a brand's culture and atmosphere rather than just their products and services.

We have also seen a shift away from traditional investment news sources to social media as an increasing number of people are turning to social media as a real-time news source. However, investors must pass their own judgment on the reliability of the information, as in some cases, unsuspecting investors have been taken advantage of. Developments have recently been made that a few years ago would have been deemed inconceivable. One hedge fund has even gone as far as predicting the stock market through analysis on Twitter. Even so, it is important to realize that with

the numerous sophisticated and innovative developments we already have, social media is still in its early stages.

i http://www.huffingtonpost.com/2011/03/14/twitter-user-statistics_n_835581.html

ii <http://www.nytimes.com/2010/05/14/technology/personaltech/14talk.html>

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iv 304 Book (353)

v 304 Book (353)

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^{xxi} <http://www.web-strategist.com/blog/2008/06/23/ongoing-list-of-social-media-in-the-financial-industry/>

^{xxii} <http://www.finra.org/Newsroom/NewsReleases/2010/P120780>

^{xxiii} http://www.dreamgrow.com/17-social-media-marketing-trends-for-2011/?utm_source=dgcom&utm_medium=DGBlogBanner&utm_campaign=2011Trends#axzz1KHXikCBk

^{xxiv} <http://www.businessnewsdaily.com/five-ways-businesses-will-use-social-media-in-2011-0895/>

^{xxv} <http://socialmediatoday.com/imckeevocaniccom/251546/how-much-will-you-spend-social-media-marketing-next-year>

^{xxvi} http://inventorspot.com/articles/does_social_media_produce_groupthink_30660